

Commercial Real Estate Energy Alliance Shopping Center and Retail Subcommittee

The Commercial Real Estate Energy Alliance (CREEA) Shopping Center and Retail Subcommittee is working to establish a “CREEA Shopping Center Benchmarking Metric” to measure the energy performance of tenant spaces.

The most common way to establish a metric is to use the whole-building energy usage divided by the gross building area, as is currently used in the Commercial Buildings Energy Consumption Survey (CBECS) database. In the shopping center and retail real estate world, it is not always possible to determine the entire building energy usage since many tenants are individually monitored, and landlords have very little to no control over energy efficiency in tenant spaces.

In order to eliminate this tenant variable and create a credible benchmark that landlords can use, the CREEA Shopping Center and Retail Subcommittee is creating the “CREEA Shopping Center Benchmarking Metric” using a simple formula from two commonly available inputs:

**Common Area Energy Usage
per Year (kBtu)**

Gross Leasable Area (ft²)



- Common area energy usage is the yearly energy usage for electricity and gas for the parcel’s exterior and interior common areas, including, but not limited to, parking fields, signage, parking structures, courts, back-of-house corridors, concourses, loading docks, water features, public restrooms, amenities, and sidewalks. The electricity and gas will be converted to kBtu.
- Gross leasable area is the square footage of the parcel’s income-generating area for either the landlord or a retailer, including, but not limited to, small shop retailers, big boxes, department stores, kiosks, retail merchandising units (RMUs), carts, storage, and income-generating amenities.

The Shopping Center and Retail Subcommittee is gathering information using a data-collection questionnaire. When possible, the subcommittee will also gather information on the entire energy use per the standard energy use intensity (EUI) metric in order to monitor the relationship between the two.

As more landlords provide their centers’ metrics, the metric can be further broken into categories, normalized, and a benchmark can be established. Possible categories include mall type, as defined by the International Council of Shopping Centers, and population density, as defined by the U.S. Census Bureau. Items that could be used to normalize the metric are U.S. Department of Energy-defined climate regions, as well as parking structures, levels of the center, food courts, and amenities.

It is important to note that this metric is an energy metric, not a shopping experience metric. For example, an enclosed regional mall that minimizes the common area between stores and maximizes the leasable area will have a lower value (lower is better) than a regional mall with wide walk areas, extremely high ceilings, and high foot-candles. This does not reflect on the overall shopping experience of either mall.

Next Steps

Once sufficient data has been collected, it will be evaluated. Subcommittee members will help further refine the metric and data collection tool and will help to evaluate and coordinate other efforts to establish benchmarking for shopping centers.

A Strong Energy Portfolio for a Strong America

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